TIPS MATH – MIDDLE GRADES

Student's Name:_____ Date: _____

TIPS: M & M

Dear Family Partner,

In math, we are studying **MEDIAN and MODE**. I hope you enjoy this activity with me. The assignment is due _____ .

Sincerely,

_____

I. LOOK THIS OVER: Explain this example to your family partner.

Remember: Median is the middle value of a set of data arranged in order from least to greatest. Mode is the value or values that appear most often in a set of data. (If all of the values are different, there is no mode.)

DATA: 8, 15, 10, 25, 18, 15, 9, 7, 11

MODE is 15

DATA: 7, 8, 9, 10, 11, 15, 15, 18, 25 (least to greatest)

MEDIAN is 11 (If there is an even amount of da ta, find the mean of the two middle values.)

II. NOW, TRY THIS: Show your family partner how you do this example.

Find the MODE and the MEDIAN.

DATA: 12, 16, 18, 10, 12, 20

III. PRACTICE SECTION: Complete these examples on your on. Show your work. Explain one example to your

Find the mode and the median of each set of data.

Data is test grades: 70, 89, 86, 100, 92, 98, 81

Data is weight in kilograms: 29 kg, 36 kg, 45 kg, 28 kg, 36 kg, 54 kg

*** *CONTINUE YOUR WORK ON THE BACK OF THIS PAGE* ***

Data is values less than six: 2, 4, 4, 3, 5, 1, 4, 3, 2, 4

IN THE REAL WORLD…

Get your family partner to help you with this.

a) List the weights of family members and find the median and mode.

b) List the shoe sizes of family members and find the median and mode.

c) List the heights of family members and find the median and mode.

ANSWER TO "NOW, TRY THIS":

MODE is 12

MEDIAN is 14

IV. HOME-TO-SCHOOL COMMUNICATION

Dear Family Partner,

Please give me your reactions to your child's work on this activity. Write YES or NO for each statement.

_____ 1. My child understood the homework and was able to complete it.

_____ 2. My child and I enjoyed the activity.

_____ 3. This assignment helped me know what my child is learning in math.

Any other comments: _____

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TIPS MATH – MIDDLE GRADES

Student's Name:_____ Date: _____

TIPS: I Mean It!

Dear Family Partner,

In math, we are studying **MEANS (AVERAGES)**. I hope you enjoy this activity with me. The assignment is due _____ .

Sincerely,

_____

I. LOOK THIS OVER: Explain this example to your family partner.

To find the mean (average) for a set of data:

1) Add all of the data
2) Divide by the number of pieces of data
3) Round to the nearest whole numbe

DATA: 23, 36, 28, 37, 42
ADD: 23 + 36 + 28 + 37 + 42 = 166
5 pieces of data: 166 ÷ 5 = 33.2
MEAN = 33

II. NOW, TRY THIS: Show your family partner how you do this example.

DATA: 64, 72, 83, 92, 56

ADD:

DIVIDE by NUMBER of ITEMS:

MEAN:

III. PRACTICE SECTION: Complete these examples on your on. Show

1. List the ages of everyone in your family and find the mean.

DATA:

ADD:

DIVIDE by NUMBER of ITEMS:

MEAN:

IS YOUR AGE CLOSE TO THE MEAN? _____

*** *CONTINUE YOUR WORK ON THE BACK OF THIS PAGE* ***

2. Find the mean shoe size for everyone in your house.

DATA:

ADD:

DIVIDE by NUMBER of ITEMS:

MEAN:

IS YOUR SHOE SIZE CLOSE TO THE MEAN? _____

IN THE REAL WORLD…

Work with your family partner to do this.

You now have your Interim Report. With your family partner, calculate your average (mean) score. Discuss whether this is satisfactory according to your ability and your family expectations.

Please have your Interim Report signed and return it on _____ with this assignment.

ANSWER TO "NOW, TRY THIS":

ADD: 64 + 72 + 83 + 92 + 56 = 367
DIVIDE: 367 ÷ 5 = 73.4
MEAN: 73

IV. HOME-TO-SCHOOL COMMUNICATION

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TIPS MATH – MIDDLE GRADES

Student's Name:_____ Date: _____

TIPS: What Are My Chances!

Dear Family Partner,

In math, we are studying **PROBABILITY**. I hope you enjoy this activity with me. The assignment is due _____ .

Sincerely,

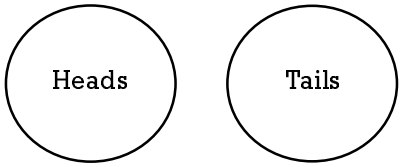
_____

I. LOOK THIS OVER:

Explain this example to your family partner.

Remember: Probability is the ratio of the number of ways an event can occur to the tota number of possible outcomes.

Using a coin, there are two equally likely outcomes.
The probability or chance of getting heads or tails is ½.



II. NOW, TRY THIS:

Show your family partner how you do these examples.

There are 6 marbles in a jar. Three of them are blue, two are red, and one is orange. You draw one marble from the jar without looking.

What is the probability of each of these events?

a. Drawing a red marble?

b. Drawing an orange marble?

c. Drawing a blue marble?

III. PRACTICE SECTION:

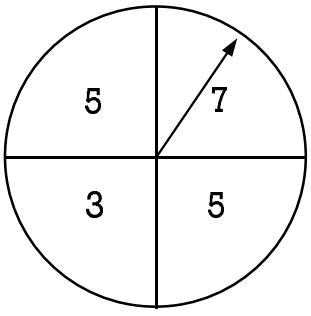
Complete this example on your own. Show your work. Explain this example to your family partner.

What is the probability of each of these events?

a) The arrow landing on 7 ?

b) The arrow landing on 3 ?

c) The arrow landing on 5 ?



IN THE REAL WORLD…

Work with your family partner to do this.

With your family partner, create a game of probability using items at home (candy, pasta, beans, blocks, or Legos). Play the game and record your results. Bring your game to class to share with your classmates.

ANSWER TO "NOW, TRY THIS":

a) Red marble — $^{2}/_{6}$

b) Orange marbl — $^{1}/_{6}$

c) Blue marble — $^{3}/_{6}$

IV. HOME-TO-SCHOOL COMMUNICATION

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TIPS MATH – MIDDLE GRADES

Student's Name:_____ Date: _____

TIPS: Stems and Leaves

Dear Family Partner,

In math, we are studying **STEM-AND-LEAF PLOTS**. I hope you enjoy this activity with me. The assignment is due _____ .

Sincerely,

_____

I. LOOK THIS OVER: Explain this example to your family partner.

A stem-and-leaf plot is a new way to display data. The stem (on the left) is the number in the tens place, th leaf (on the right) is the number in the ones place.

Example:

Fifteen children have these weights: 53, 54, 71, 42, 47, 60, 75, 61, 67, 77, 45, 55, 63, 73, 45

They are displayed as shown:

Stem	Leaf
7	1 3 5 7
6	0 1 3 3 7
5	
4	2 5 5 7

Notice that the leaves are in order.

II. NOW, TRY THIS: Show your family partner how you do this example.

Your quiz grades are: 87, 100, 93, 81, 78, 83, 95, 97, 85, 78, 90, 89

Complete the stem-and-leaf plot to display this information.

Stem	Leaf
10	
9	
8	
7	

IN THE REAL WORLD…

Work with your family partner to do this.

Ask your family partner to work with you. Record the ages of your family members in a ste -and-leaf plot. Use parents, grandparents, aunts, uncles, brothers, and sisters. (if a child is younger than one year old, record the age as one year.)

Note to the family partner:
We will use this information in class to do more statistical analysis. Your child will show you the results.

Stem	Leaf

ANSWER TO "NOW, TRY THIS":

Stem	Leaf
10	
9	0 3 5 7
8	1 3 5 7 9
7	

IV. HOME-TO-SCHOOL COMMUNICATION

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TIPS MATH – MIDDLE GRADES

Student's Name:_____ Date: _____

TIPS: Too Many Choices!

Dear Family Partner,

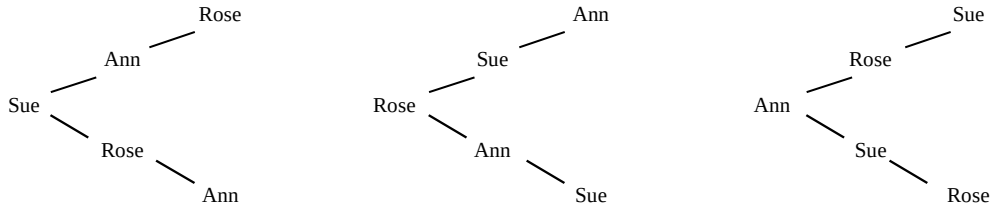
In math, we are studying **COMBINATIONS IN PROBABILITY**. I hope you enjoy this activity with me. The assignment is due _____ .

Sincerely,

_____

I. LOOK THIS OVER: Explain this example to your family partner.

If there are three runners, how many different ways could they finish a race? A tree diagram illustrates the possible finishes



There are six different ways for them to finish.

II. NOW, TRY THIS: Show your family partner how you do this example.

A team shirt comes in four colors (red, blue, green, and yellow) and in long sleeves and short sleeves. How many possible choices are there? Show your work by using a tree diagram.

III. PRACTICE SESSION: Complete this example on your own. Show your work. Explain it to your family partner.

Mary has three shirts, two blouses, black shoes, and white shoes. How many days can she go without repeating the same combination? Draw a tree diagram to answer the question.

*** *CONTINUE YOUR WORK ON THE BACK OF THIS PAGE* ***

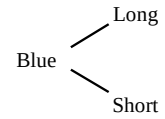
IN THE REAL WORLD…

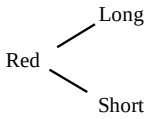
Work with your family partner to do this.

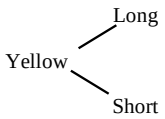
Ask your family partner to select a few shirts, pants, and shoes from your wardrobe. You record how many of each and the colors of each. Draw a diagram to illustrate the possible combinations. How many days could you go without repeating an outfit? Would you really wear all of your combinations?

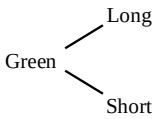
ANSWER TO "NOW, TRY THIS":

4 colors x 2 sleeves = 8 choices of shirts









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